

**Amendments to the Claims:**

Please amend claims 1, 10, and 22, and add new claim 30. Following is a complete listing of the claims pending in the application, as amended:

1. (Currently Amended) A method for calibrating a visual display, the method comprising:

- (a) analyzing a visual display module, the module comprising an array of pixels and corresponding subpixels;
- (b) locating and registering multiple subpixels of the visual display module;
- (c) determining a chromaticity value and a luminance value for each registered subpixel;
- (d) converting the chromaticity and luminance value for each registered subpixel value to measured tristimulus values;
- (e) converting a target chromaticity value and a target luminance value for a given color to target tristimulus values;
- (f) calculating correction factors for each registered subpixel based on a difference between the measured tristimulus values and the target tristimulus values; and
- (g) sending the correction factors to the visual display module.

2. (Previously Presented) The method of claim 1, further comprising:

- (h) setting the visual display module image to the color red;
- (i) repeating steps (a) to (f); and
- (i) repeating steps (h) and (i) with the visual display sign image set to green, blue, and white.

3. (Previously Presented) The method of claim 1 wherein the subpixels are light-emitting diodes.

4. (Previously Presented) The method of claim 1 wherein the process in step (c) for determining the chromaticity value and luminance value for each subpixel includes the use of an imaging colorimeter.

5. (Cancelled)

6. (Cancelled)

7. (Previously Presented) The method of claim 1 wherein the process in step (g) for sending the correction factors to the visual display module comprises uploading the corrected subpixel values to firmware and/or software controlling the visual display module.

8. (Previously Presented) The method of claim 1 wherein steps (a) to (g) take place within a test station.

9. (Previously Presented) The method of claim 1 wherein steps (a) to (g) take place in a darkroom.

10. (Currently Amended) A method for calibrating a visual display, the method comprising:

- (a) analyzing a portion of a visual display module, the portion comprising an array of pixels and corresponding subpixels;
- (b) locating and registering multiple subpixels within the array
- (c) determining a chromaticity value and a luminance value for each registered subpixel within the array;
- (d) storing the chromaticity value and the luminance value for each subpixel;
- (e) repeating steps (a) to (d) for each portion of the visual display module until all portions of the visual display module have been analyzed;
- (f) converting the chromaticity value and luminance value for each ~~measured~~ registered subpixel to measured tristimulus values;

- (g) converting a target chromaticity value and a target luminance value for a given color to target tristimulus values;
  - (h) calculating correction factors for each subpixel based on a difference between the measured tristimulus values and the target tristimulus values;
  - (i) applying the correction factors to the stored chromaticity and luminance values for each subpixel; and
  - (j) calibrating the visual display module with the corrected subpixel values.
11. (Previously Presented) The method of claim 10, further comprising:
- (k) setting the visual display module to project the color red;
  - (l) repeating steps (a) to (i); and
  - (m) repeating steps (k) and (l) with the visual display module set to green, blue, and white.
12. (Previously Presented) The method of claim 10 wherein the subpixels are light-emitting diodes.
13. (Previously Presented) The method of claim 10 wherein the pixels are pixels of a liquid crystal display (LCD).
14. (Cancelled)
15. (Cancelled)
16. (Previously Presented) The method of claim 10 wherein the process in step (c) for determining the chromaticity value and luminance value for each registered subpixel includes the use of an imaging colorimeter.
17. (Previously Presented) The method of claim 10 wherein the process in step (d) for storing the chromaticity value and luminance value for each subpixel comprises storing the data in a database.

18. (Previously Presented) The method of claim 10 wherein the process in step (h) for calculating correction factors for each subpixel includes processing the data using a computer and software.

19. (Previously Presented) The method of claim 10 wherein the process in step (j) for calibrating the visual display module further comprises uploading the corrected subpixel values to firmware and/or software controlling the visual display panel.

20. (Previously Presented) The method of claim 10 wherein steps (a) to (j) take place within a test station.

21. (Previously Presented) The method of claim 10 wherein steps (a) to (j) take place in a darkroom.

22. (Currently Amended) An apparatus for analyzing and calibrating a visual display, comprising:

means for capturing an image from a portion of the visual display module positioned within a testing station;

means for determining a chromaticity and a luminance value for each of a plurality of subpixels from the captured image;

means for converting the chromaticity values and luminance values for each of the subpixels to measured tristimulus values;

means for converting a target chromaticity value and a target luminance value for a given color to target tristimulus values; and

means for adjusting the tristimulus values for each subpixel to correspond with the target tristimulus values.

23. (Original) The apparatus of claim 22 wherein the means for capturing the image comprises a CCD digital camera and lens.

24. (Original) The apparatus of claim 22 wherein the means for capturing the image comprises a CMOS digital camera and lens.

25. (Previously Presented) The apparatus of claim 22 wherein the means for determining the chromaticity and the luminance values for a plurality of subpixels comprises software loaded in an interface, the interface being operably coupled to both the capturing means and the visual display module.

26. (Previously Presented) The apparatus of claim 22 wherein the means for adjusting the tristimulus values for each subpixel comprises software for calculating a set of correction factors to be applied to each subpixel and uploading the correction factors to the visual display module.

27. (Cancelled)

28. (Cancelled)

29. (Previously Presented) The method of claim 1 wherein sending the correction factors to the visual display module comprises calibrating the module with the adjusted subpixel values.

30. (New) A method for calibrating a visual display module having an array of pixels and corresponding subpixels, the method comprising:

- (a) locating and registering multiple subpixels of the visual display module carried by a testing station with a flat-fielded imaging photometer;
- (b) calculating chromaticity coordinates ( $C_x$ ,  $C_y$ ) and luminance values ( $L$ ) for each of the registered subpixels;
- (c) converting the chromaticity coordinates and luminance values for each registered subpixel to measured tristimulus values ( $X_m$ ,  $Y_m$ ,  $Z_m$ );
- (d) converting a target chromaticity value and a target luminance value for a given color to target tristimulus values ( $X_t$ ,  $Y_t$ ,  $Z_t$ );

- (e) calculating correction factors for each registered subpixel based on a difference between the measured tristimulus values ( $X_m$ ,  $Y_m$ ,  $Z_m$ ) and the target tristimulus values ( $X_t$ ,  $Y_t$ ,  $Z_t$ ), wherein the correction factor for each registered subpixel includes a three by three matrix of values that indicates some fractional amount of power to turn on each registered subpixel for a given color; and
- (f) calibrating the visual display module with the adjusted values for each registered subpixel.